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Value Relevance of Earnings and Book Value of Equity: Evidence from Malaysia

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Abstract

The purpose of this paper is to examine the value relevance of accounting information in the Malaysian main capital markets' firms by employing the basic Ohlson model. The study employs Prais-Winsten regression, correlated panels corrected standard errors (PCSEs) to analyze data due to the existence of cross sectional dependence across panels. The results show that the book value of equity is significantly value relevant variable in decision making, while earnings are not as opposed to the conceptual framework for financial reporting. It shows that investors focus on the book value of equity while less emphasis on earnings in investment decision making due to the perception of managerial bias in the reported earnings.

Keywords

Value Relevance of Accounting Information, Earnings, Book value of equity, Ohlson Model, Malaysia

Introduction

The primary objective of financial reporting is the provision of accounting information that should be useful for decision making. The decision-useful information should be relevant and reliable as defined by the conceptual framework for financial reporting (IASB, 2010, 2018). A recent survey in 2016 had highlighted that 17% of economic crimes are associated with accounting frauds in Malaysia (PwC, 2016). Moreover, renowned Malaysian domestic accounting scandals e.g. Transmile Group Berhad, Megan Media Holdings Berhad, Southern Bank Berhad and 1Malaysia Development Berhad (2013), are also associated with creative accounting and fraud. These companies cheated their investors by providing misleading financial statements (Fong, 2007a, 2007b; Saieed Zunaira, 2016) and resulted in a major loss to investors through manipulation of the accounting information.

The above facts show the significance of accounting information especially from the perspective of the investors in the investment decision making. Therefore, Malaysian regulators have adopted good financial reporting practices gradually over the period to improve the quality of accounting information. Malaysian regulators introduced IFRS and were made compulsory from 1st January 2006 and a full set of IFRS from 1st January 2012 to further strengthen the financial reporting practices by the Malaysian listed firms to aid investors in decision making.

Investors are the primary users of financial statements and they are; therefore, the high-quality accounting information is the utmost desirable. Value-relevance studies access the quality of accounting information by analyzing the qualitative characteristics of financial statement information i.e. relevance and faithful representation (formally known as reliability) (Barth, Beaver, & Landsman, 2001; Kothari, 2001). Moreover, the conceptual framework for financial reporting also stresses the importance of relevant financial information because it plays an important capital market's efficient functioning (IASB, 2010, 2018). Due to this fact that value relevance has become the most important attribute of accounting information's quality for regulatory bodies, investors and other users of financial statements (Alfraih & Gale, 2016; Barth et al., 2001).

Accrual-based earnings are the key financial statement information that is designed by the IASB to predict enterprise future cash flow to aid investors in decision making (IASB, 2010, 2018). While many studies highlight that earnings are not relevant in decision making as opposed to most of the empirical literature including Malaysia (Arora & Bhimani, 2016; Kadri, Abdul Aziz, & Ibrahim, 2009; Kwon, 2009; Modi & Pathak, 2014; Saeedi & Ebrahimi, 2010). The above studies highlight that the role of earnings in decision making is diminished because the investor doesn't consider it relevant and reliable. While many studies in the recent literature including Malaysia argue that earnings are still value relevant, but its value relevance is reduced in terms of the growing reliance of investors on the book value of equity (BVE, hereafter) (Barth, Li, & McClure, 2018; Gan, Chong, & Ahmad, 2016; Kargin, 2013; Sharma, Kumar, & Singh, 2012; Tanaka, 2015; Zubdeh, 2016). The issue of decline in the value relevance of earnings and increasing significance of BVE was first highlighted by Collins, Maydew, and Weiss (1997), who stated that actually value relevance of earnings is replaced by the BVE due to the increased frequency of companies to report loss and adjustment of non-recurring items against earnings has made it a noisy measure. Marquardt and Wiedman (2004) and Whelan and McNamara (2004) shed further light on this issue of declining importance of earnings and associated it to managerial manipulation, that has reduced decision usefulness of earnings and consequently its value relevance.

Based on the above discussion, the current study proposes that earnings and BVE are significantly value relevant variable in decision making. While, in Malaysia, after the application of a full set of IFRS in 2012, the studies exploring the value relevance of reported accounting information are very timely and warranted specially to evaluate, whether the efforts to improve quality of accounting information is successful.

Literature Review

Malaysian Financial Reporting Environment

Considering the growth in the country's economy, Malaysian regulators have adopted good financial reporting practices gradually over the period. International Accounting Standards

Committee (IASC) issued the International Accounting Standards (IAS) in 1978, Malaysia also adopted it for the formation of their own accounting standards. Majority of the IAS had either been implemented or were under discussion for the implementation in Malaysia from 1996 (Ball, Robin, & Wu, 2003). The IFRS was introduced by the Malaysian regulators and were made compulsory from 1st January 2006 and a full set of IFRS from 1st January 2012. Under the Financial Reporting Act, 1997, the first official Malaysian' framework for accounting was also established. Two bodies were formed under the parliamentary act, the Malaysian Accounting Standards Board (MASB), which is responsible for the accounting standards setting; and the Financial Reporting Foundation (FRF). FRA 1997 made it compulsory for the listed and non-listed firms to adopt MASB standards. The issue of the application with MASB standards is delegated to numerous bodies such as Securities Commission, Bank Negara Malaysia, Companies Commission of Malaysia and Malaysian stock market (Bursa Malaysia).

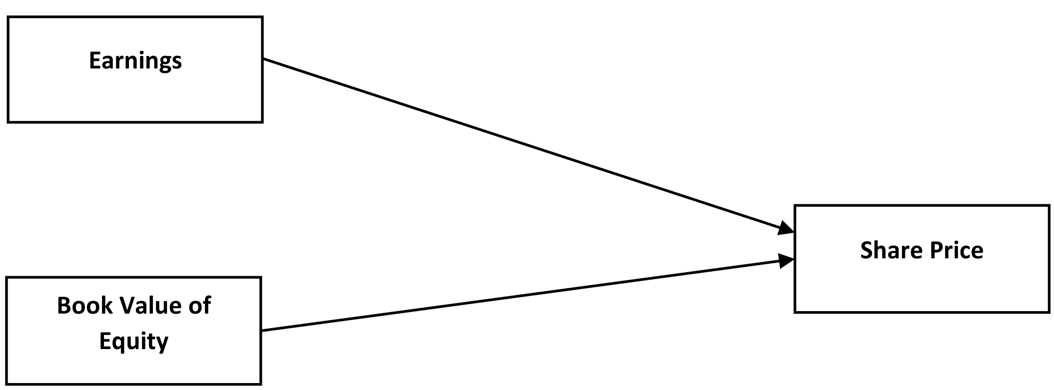
Conceptual Framework

The primary purpose of financial reporting is the provision of financial information about a firm to help investors for their decision making (IASB, 2010, 2018). The conceptual framework specifies that accrual-based earnings are the primary financial information for decision making because of accrual accounting attempt to record the financial transactions that have cash effects for a firm in the periods of the actual occurrence of the transactions. Thus, the conceptual framework supports the view that earnings provide a better assessment regarding the future cash flows generation as compared to other financial information. IASB (2010, 2018) further specifies that the statement of financial position gives information regarding the assets and liabilities of the firm. This information also supports the investors for their decision making by providing an overview of the financial strength and weakness of the firm.

While the evidence from recent literature denies the rational given by the conceptual framework for financial reporting that earnings are the most superior information as compared to BVE and other accounting information (Arora & Bhimani, 2016; Barth et al., 2018; Gan et al., 2016; Tahat, 2017). The studies by the Marquardt and Wiedman (2004) and Whelan and McNamara (2004) shed light on this issue through an explanation that when a company provides lower quality earnings, it weakens the association between the accounting earnings and value relevance. In that case, investors focus on the other accounting information for decision making (Tahat, 2017). Previous literature had also endorsed this point of view that investors rely on other accounting information such as BVE in comparison with earnings for decision making (Kargin, 2013; Kwon, 2009; Sharma et al., 2012; Tanaka, 2015; Zubdeh, 2016). The conceptual framework of financial reporting (2010,2018) also supports this argument because it explicitly states that financial information should be relevant and faithfully presented. Otherwise, it will not be used by the investors in their decision making and will be less value relevant. Therefore, this study examines the relationship between earnings, BVE and firms value. The diagram is illustrated below.

Figure 3.1

Conceptual Framework



Value Relevance

Value relevance studies are grounded on the view that investors are the main users of financial statement and they are, and it measures the confidence of investors on the accounting information. According to Hellstrom (2006), there are two major perspectives for evaluating the value relevance. First, the signaling perspective, that evaluates, whether the announcement of accounting information has created any reaction into the market, and the measurement perspective, that assesses the association among firm's market value and the accounting information (Hellstrom, 2006). The approach that is given by Hellstrom (2006) is consistent with the interpretations of Barth et al. (2001), the relevant accounting information will be reflected in firm value or stock return if an investor finds it useful.

Value-relevance is actually a combined test for the qualitative characteristics of financial statement information i.e. relevance and faithful representation (formally known as reliability) (Barth et al., 2001; Kothari, 2001). Therefore, value relevance definition is also in line with the definition given by the conceptual framework for financial reporting (2010,2018), the decision-useful information should be relevant and reliable otherwise it will be irrelevant for the investors in decision making. Most of the prior literature related to the accounting information quality used a proxy of the value relevance (Suadiye, 2012). Francis, LaFond, Olsson, and Schipper (2004) specified three markets and four accounting-based attributes of quality of accounting information and argued that not even one is superior as compared to other two market-based measure of accounting (i.e. timeliness and conservatism).

The value relevance has become one of the dominant area in capital market research in accounting literature (Collins et al. 1997; Barth et al.2001; Kothari 2001). Hence, a study on testing accounting information and firm value correlation as value relevance of accounting information is important because: (1) it is one of the possible interpretations of value relevance (Hellstrom, 2006), (2) its importance is not for the investors only, but it also provides insight into other accounting information user groups (Alfraih & Gale, 2016; Barth et al., 2001). While the Ohlson (1995) model specified that earnings and BVE as a function of firm value. Therefore, earnings and BVE are the most significant variable for the explanation of firm value and their dominance is based on the valuation model's specification that is used to operationalize value relevance. The current study will also use the Ohlson (1995) valuation model to examine the value relevance of earnings and BVE. This study will consider earnings and BEV as an independent variable. Accounting information, earnings and BVE are discussed in the next section.

Value Relevance of Earnings and Book Value of Equity

Most of the research in early stages related to the value relevance of earnings after the studies by Ball and Brown (1968) and Beaver (1968) aimed at describing the explanatory power of earnings as the change in price and stock returns and found earnings as a value relevant variable (Easton & Harris, 1991; Haw, Qi, & Wu, 1999; Patell & Wolfson, 1984; Vafeas, Trigeorgis, & Georgiou, 1998).

Later in 90s value relevance research also focused on the other measures of accounting information related to the statement of the financial position including earnings. Ohlson (1995) and Feltham and Ohlson (1996) studies redefined the appropriate objective of research on the association among accounting information and firm value. Both provided structure for modeling in the field of accounting by relating the earnings and the BVE with firm value. Collins et al. (1997) based his work on the Ohlson (1995) model and argued that BVE has become a more significant value relevant variable in contrast with the earnings. The author expalined the reasons for this shift in value-relevance due to the rising rate of firms reporting the loss, the magnitude of non-recurring item adjusted against earnings and changes in average firm size. Barth, Beaver, and Landsman (1998) presented evidence on different industries and explained the roles of the statement of financial position and the statement of income. First, the value relevance of earnings and BVE differ among industries. Second, nature and state of the firm define the BVE explanatory power. For example, firms that declare a loss or having small earnings are valued only based on the BVE.

At a later stage in value relevance research, authors also explored the comparative value relevance of earnings and other accounting information in countries following Anglo-Saxon and non-Anglo-Saxon model. Results of the study concluded that earnings are more value relevant variable in Anglo-Saxon countries because capital is raised through capital markets and financial reporting structure is designed to fulfil the equity investor's needs (Bartov, Goldberg, & Kim, 2001; Black & White, 2003). While prior literature based on different developed and developing countries also endorsed the above findings that earnings and BVE both are value relevant but relative value relevance of earnings are high as compared to BVE and other accounting information (Habib, 2008; Khanagha, Mohamad, Hassan, & Sori, 2011; Miranda-Lopez & Nichols, 2012; Mostafa & Mostafa, 2016; Papadatos & Makri, 2013; Ragab & Omran, 2006; Shamki & Rahman, 2011). In contrast, some author claims that value relevance of BVE is higher as compared to earnings and other accounting information because investors put more reliance on BVE for decision making (Kargin, 2013; Kwon, 2009; Sharma et al., 2012; Tanaka, 2015; Zubdeh, 2016).

Past literature also provided evidence regarding the insignificant role of earnings in decision making (Amir & Lev, 1996; Arora & Bhimani, 2016; Kwon, 2009; Modi & Pathak, 2014; Pervan & Bartulovic, 2014; Saeedi & Ebrahimi, 2010). The main reason behind the insignificant role of earnings is the belief of the investors that the earnings are subjected to managerial manipulation and consequently reducing the value relevance of earnings (Barth et al., 2018; Marquardt & Wiedman, 2004). Some studies also highlighted that BVE is irrelevant is decision making due to its stable nature and inability to predict future cash flows (Amir & Lev, 1996; Ho, Liu, & Sohn, 2001; Omokhudu & Ibadin, 2015).

In Malaysia, only a few authors explored the area of value relevance of accounting information and examined the value relevance of earnings and BVE and stated that both variables are value relevant (Ali, Saffa, Besar, & Mastuki, 2018; Jamaluddin, Mastuki, & Elmiza Ahmad, 2009; Kadri, 2015; Nejad, Ahmad, & Embong, 2018). While some studies stated that both variables are value relevant, but BVE is more relevant than earnings and reduced value relevance is going to be replaced by increasing value relevance of BVE (Gan et al., 2016; Kwong, 2010). While one study by Kadri et al. (2009) claimed that earnings are not relevant in the property sector of the Malaysian capital market. The studies conducted in Malaysia did not consider firms specific factors as control variables irrespective of the fact that these factors had a significant impact on the value relevance of accounting information (Habib & Azim, 2008; Hayn, 1995). Moreover, these studies were based on small sample size, therefore, their results may not be generalized.

Collectively, prior studies had demonstrated mixed results regarding value relevance of earnings and BVE including Malaysia but still, it is well-established fact that most of the prior researchers found the considerable correlation between earnings and firm value/ stock return. Collins et al. (1997) and Beisland (2009) argued that in the extant literature, at present, most of the researchers believe that earnings are value-relevant and remained the primary focus of the research, while BVE also provides value relevant information (Habib, 2010). These arguments are in line with the conceptual framework (2010,2018), that states, the financial information related to the income statement, statement of financial position aids the investor in decision making. So, these arguments lead to the notion that earnings and the BVE are value relevant in the Malaysian main capital market. Thus, the following hypotheses can be developed:

H1a: Earnings has a significant positive relationship with the firm value.

H1b: Book value of equity has a significant and positive relationship with the firm value.

Research Methodology

Valuation Model

In order to examine the association among accounting information and value relevance, generalized Ohlson (1995)'s valuation framework was used by this study. Most of the recent empirical literature that assessed the value relevance of earnings and BVE, used Ohlson (1995)'s price model (Bepari, Rahman, & Taher Mollik, 2013; Khanagha et al., 2011; Nejad et al., 2018; Tahat, 2017). In line with the previous studies, the study also controls firm specific variables, i.e. firm size, leverage and growth (Akbar, Shah, & Stark, 2011; Bepari et al., 2013; Habib & Azim, 2008; Hayn, 1995). The full control model will be utilized to investigate the association among earnings, BVE and firm value, specified through the regression equation are given below to test hypotheses H1a, H1b.

$$SP_{it} = \beta 0 + \beta 1EPS_{it} + \beta 2BVPS_{it} + \beta 3SIZE_{it} + \beta 4LEVERG_{it} + \beta 5GROW_{it} + \varepsilon_i$$

SP_{it}: Share price after a four-month period following the at year t and firm i,

EPS_{it}: Earning per share for a company at year t and firm i,

$BVPS_{it}$: Book value of equity of equity per share for a company at year t and firm i,

$SIZE_{it}$: Natural log of total assets at year t and firm i,

$LEVERG_{it}$: Ratio of debt to total assets at year t and firm i,

$GROW_{it}$: Market- to- book ratio at year t and firm i,

ε_{it}: error term,

Sample Selection

The population of the study is comprised of all non-financial listed firm on the Bursa Malaysia main market covering the period of 2012-2016. There are 801 listed companies on the 31st December 2016. The 83 companies that have changed the fiscal year during 2012-2016 and the 34 companies listed on Bursa Malaysia after 2012 are excluded from the sample. Following the prior studies, 32 financial, insurance institutions and 15 REITs (Real Estate Investment Trust) are excluded from the sample due to the unique regulatory framework that is not applicable non-financial companies, consistent with Malaysian and international studies (Abdullah, Evans, Fraser, & Tsalavoutas, 2015; Akbar et al., 2011; Bepari et al., 2013; Gan et al., 2016; Graham & King, 2000; Jianu, Jianu, Ileanu, Nedelcu, & Herteliu, 2014; Kwon, 2009). The 20 companies with missing data on share price and 3 companies missing on the annual reports are also excluded from the study. Finally, the 7 companies with negative BVE are also excluded from the sample because the companies with the negative BVE are likely to be in financial distress, and as such might result in different relationship among the earnings, BVE and share price, consistent with the prior studies (Bepari et al., 2013; Jamaluddin et al., 2009) The final sample for this study comprised 607 firms and 3035 firm year observations.

Empirical Results

Descriptive Analysis

Table1 present descriptive statistics for the sample firms. Skewness and kurtosis statistics recommend that there is a lack of normality in the variables. The central limit theorem explains that the distribution of a sample of any statistics will be normal or nearly normal, will not interrupt the normality hypothesis in regression analysis if the sample size is larger than 294 (Gujarati, 2003). Therefore, this study is based on non- normal data and will not exclude outliers.

Table 1:

2012-2016

Descriptive Statistics

Variable	Observations	Mean	Minimum	Maximum	Median	St. D	Skewness	Kurtosis
SP	3035	2.0779	.03	82	.84	5.1735	8.6938	99.9292
EPS	3035	.11760	-3.963	14.477	.058	.40570	15.957	534.9132
BVPS	3035	1.5569	.013	17.691	1.013	1.7443	3.2191	17.8890
SIZE	3035	13.1332	9.9533	18.7048	12.9349	1.4784	.8021	3.7470
LEVERG	3035	18.3539	0	76.01	15.9	15.521	.6757	2.17822
GROW	3035	1.4295	.02	157.39	.81	4.3449	21.7442	643.9217

Results of Regression Analysis

First, to fulfill the assumption of the regression, Pearson's correlation coefficient was done. The findings are shown in Table 2, the correlation between SP on BVPS and EPS were 0.5668 and 0.4600. It determines that the BVE and earnings have a positive relationship with the share price. Further, to dig out the problem of multicollinearity, the Pearson's correlation coefficients between independent variables were analyzed. The correlation among independent variables EPS and BVPS was 0.3447. As the value was smaller than 0.8, multicollinearity is not a critical problem in the ordinary least squares regression (Hair, Bill, Barry, & Anderson, 2006).

Table 2:
2012-2016
Pearson Correlation Matrix

	SP	EPS	BVPS	SIZE	LEVERG	GROW
SP	1.0000					
EPS	0.5668**	1.0000				
BVPS	0.4600**	0.3447**	1.0000			
SIZE	0.2970**	0.2029**	0.4683**	1.0000		
LEVERG	- 0.0683**	- 0.1023**	-0.0685**	0.3282**	1.0000	
GROW	0.3975**	0.2001**	-0.0309	0.1010**	0.0029	1.0000

* significance at 0.05 levels, ** significance at 0.01 significance levels

Multicollinearity issue can also be observed by variance inflation factor (VIF) tests. As per Hair et al. (2006) as the VIF value is less than 10 indicates that there is no multicollinearity. The value VIF of each independent variable is less than 10, suggesting no multicollinearity. Further, to diagnose the autocorrelation and heteroscedasticity in the panel data, Wooldridge test was used to detect autocorrelation and corresponding results found P(value) = 0.0000, for heteroscedasticity, Breusch-Pagan test was performed, found corresponding P(value) = 0.0000. These tests highlighted the presence of material heteroskedasticity and autocorrelation in the panel data. The existence of heteroscedasticity can nullify the efficiency of using the statistical results, whereas bias in estimated standard errors may direct to invalid inferences (Brooks, 2014). Initially regression analysis is carried out under two different techniques, Random Effect Model and Fixed Effect Model. The Hausman test is employed to determine, which of the model is applicable to the sample. Based on the corresponding value of Hausman test P(value)=0.0000, Fixed Effect Model is found appropriate. While cross sectional dependence (CSD, hereafter) is another issue in panel data set, to detect CSD, Modified Wald test for group wise heteroskedasticity and Pesaran CD test in fixed effect regression model was used and found the corresponding P(value) = 0.0000, both tests show the existence of significant CSD in the panel data set. In the presence of CSD, the results of the fixed effect model will be unreliable (Hoechle, 2007). Therefore, this study has adopted the Prais-Winsten regression, correlated panels corrected standard errors (PCSEs) that provide the reliable results in the presence of first order and panel specific auto correlation, heteroscedasticity and CSD when N>T (607>5), i.e. the case of the current study (Beck & Katz, 1995). The results are provided in Table 3 above. The findings demonstrated that earnings are positively related with share price, but not statistically significant at 5% significance level, 0.063 (p value <.05), so, not supporting H1a. BVE is positively related with share price, and statistically significant at 1% significance level, 0.000 (p value <.01), and supporting H2b. The Adjusted R Squared is 49.40% that shows the role of earnings and BVE in explaining share price.

Table 3:

2012-2016

Prais-Winsten regression, correlated panels corrected standard errors (PCSEs)

SP	Coefficient	Standard Errors	Z-Value	P-Value
Constant	-3.420971	.3501452	-9.77	0.000***
EPS	.6372478	.3432266	1.86	0.063*
BVPS	.9283496	.0601042	15.45	0.000***
SIZE	.2964847	.0291873	10.16	0.000***
LEVERG	-.0178606	.0023429	-7.62	0.000***
GROW	.0968311	.0293259	3.30	0.001***
R-Squared	.4947			
Adjusted-R Squared	.4940			

*** significant at .01 levels, ** significant at .05 levels, * significant at .1 levels

Discussion of Results

The result related to the value relevance of earnings is consistent with one Malaysian study by Kadri et al. (2009), who stated that earnings are irrelevant is Malaysia, but this study was based on only the property sector of Malaysian capital market, therefore, its result may not be generalized. The above finding is also supported by many international studies by explaining that earnings are not a value relevant variable for decision making (Arora & Bhimani, 2016; Kwon, 2009; Modi & Pathak, 2014; Saeedi & Ebrahimi, 2010). The main reason behind this result as opposed to the most of Malaysian studies is that, these studies had not considered the firm specific control variables that have a significant impact on the share price and are also based on the small samples size as compared to the current study. On the other hand, BVE is value relevant variable. This result is in line with most of the Malaysian and international studies that BVE is a significant value relevant variable that shows the confidence of investors on BVE in decision making (Ali et al., 2018; Barth et al., 2018; Gan et al., 2016; Jamaluddin et al., 2009;

Kadri et al., 2009; Kargin, 2013; Kwong, 2010; Nejad et al., 2018; Sharma et al., 2012; Tahat, 2017; Tanaka, 2015; Zubdeh, 2016).

The Adjusted R Squared is 49.40% is closer to studies in Malaysia by Kwong (2010) and Gan et al. (2016) that showed Adjusted R Squared respectively 46.4%, 57.5%. While some Malaysian studies by Graham and King (2000), Jamaluddin et al. (2009) and Kadri et al. (2009) showed lower or higher Adjusted R Squared 27.7 %, 60.2% 66.6% respectively. The main reason behind this was that, these studies were conducted before or during the IFRS adoption period. Therefore, the reaction of investors towards accounting information was unexpected due to the transition period and results were different from this study. Another explanation for this Adjusted R Squared is that the sample of this study includes observations (614 out of 3035) with negative earnings, a study by Bepari et al. (2013) explained that there is a difference between the Adjusted R Squared for the firms with negative and positive earnings and found Adjusted R Squared 27.14% for firms with negative earnings and 57.61% for firms with positive earnings and 48.15% for pooled sample that is close to my study.

Overall, this study recommends that investors are differently valuing these two accounting measures for its impact on share prices where investors put more confidence in the BVE as compared to earnings for decision making. The main reason behind this the managerial manipulation of earnings that reduces the confidence of investors on earnings that argument is supported by many studies in the past literature (Barth et al., 2018; Collins, Pincus, & Xie, 1999; Marquardt & Wiedman, 2004; Tahat, 2017; Whelan & McNamara, 2004). Another explanation is given by the Barth et al. (1998) who argued that due to the increasing tendency of the firms reporting loss is the main factor behind the reduced relevance of earnings in decision making.

Conclusions

Malaysia has adopted a complete set of IFRS in 2012 to improve the quality of accounting information. While based on the findings of this study, it specifies that the role of the BVE has been increasingly important as compared to the role of earnings. Investors are putting reliance on the BVE and ignoring earnings or less emphasis to take better investment decision due to the managerial manipulation of earnings. This result is also not in line with the conceptual framework for financial reporting (2010, 2018) that emphasized the role of earnings as a primary variable in decision making. Therefore, based on results presented in this study, local standard setters should also consider appropriate action to improve the quality of accounting earnings and curtailment of managerial manipulation practices to improve investors perception. It also provides valuable information to standard setters in other developing countries that have adopted the full set of IFRS or planning to adopt.

There are many limitations in this study including, this study is based on the listed non- financial firms in Malaysia as a developing country, and the problem of generalization to other developing countries may be difficult due to different legal, institutional and economic environment. This study only focused on earnings and BVE, while future research may also focus on the value relevance of other accounting information such as corporate disclosure, environmental performance, items in comprehensive income statement other than earnings and BVE. Further research could be carried out in developing countries with different legal, institutional, economic and ownership environment so that the value relevance of accounting information in a different setting can be explored.

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